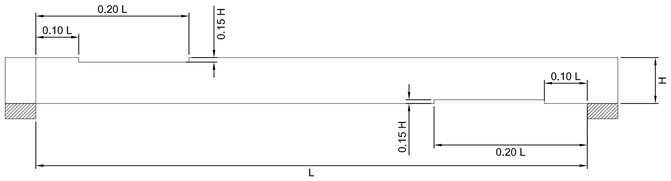
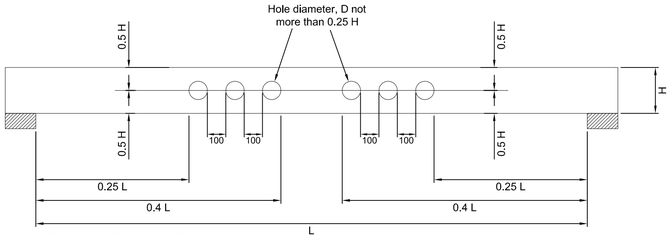
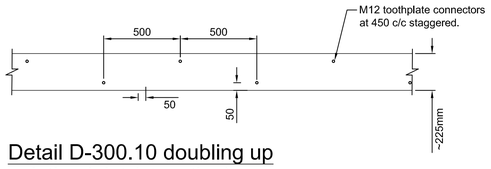


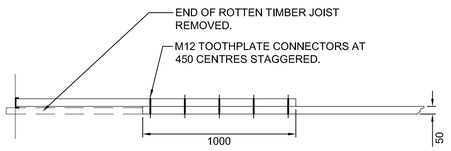
Detail D-300.5 (general rules for notches in floor and roof joists)
Scale 1:10



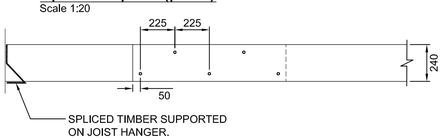
Detail D-300.6 (general rules for holes in floor and roof joists)
Scale 1:10



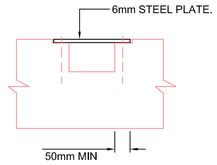
Detail D-300.10 doubling up existing joist (elevation)
Scale 1:20



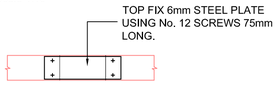
Detail D-300.3 joist end splice repair (plan)
Scale 1:20



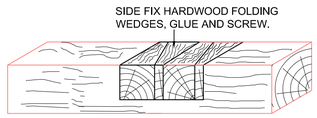
Detail D-300.4 joist end splice repair (elevation)
Scale 1:20

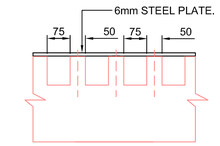


Detail D-300.1 notch repair
FOR NOTCHES OVER 0.15xd DEEP
Scale 1:10

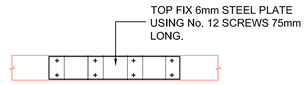


Plan on notch repair

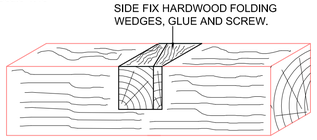




Detail D-300.2 multi-notch
FOR NOTCHES OVER 0.15xd DEEP
Scale 1:10



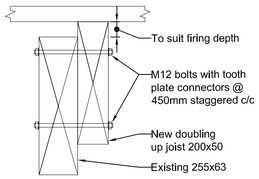
Plan on multi-notch repair
FOR NOTCHES OVER 0.15xd DEEP
Scale 1:10



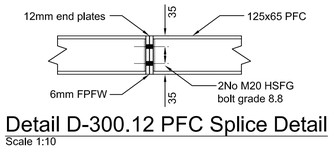
Detail D-300.8 (Notch Repair)
Scale 1:20

TYPICAL REPAIRS TO ALL FLOORS

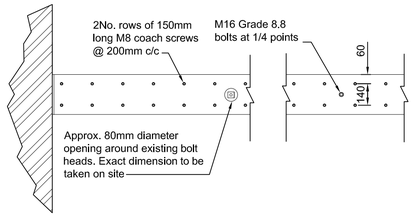
- CAREFULLY TAKE UP ALL FLOOR BOARDS AND NUMBER TO ENSURE THEY ARE REINSTATED IN ORIGINAL LOCATION.
- REMOVE ALL DEBRIS FROM FLOOR VOID.
  CHECK ALL JOIST BEARINGS PLUS PRIMARY AND SECONDARY TIMBER BEAM BEARINGS AND ADVISE ENGINEER OF ANY WHICH ARE SHORT.
  GENERALLY JOIST MINIMUM BEARING 50mm BEAM MINIMUM BEARING 100mm.
- UNDERTAKE SPECIFIC REMEDIAL WORKS TO BEARINGS IF INSTRUCTED.
  UNDERTAKE ANY ADDITIONAL STRENGTHENING OR SPECIFIC WORKS AS NOTED. INSERT NOGGINS TO ENDS & MIDSPAN OF FLOOR JOISTS.
- SCREW FIX JOIST TO TIMBER BEAMS AS DETAILED.
- FIX BRACKETS AS DETAIL AT JUNCTION OF JOIST AND TRIMMER.
- REPAIR ALL EXISTING NOTCHES AS DETAIL.
  FORM ANY NEW SERVICE HOLES/NOTCHES IN ACCORDANCE WITH STANDARD DETAILS.
- CLEAR OUT ANY DEBRIS WITHIN FLOOR VOID.
  SCREW FIX FLOOR BOARDS ON COMPLETION OF UNDER FLOOR SERVICE INSTALLATION.
- WHERE EXISTING STRUCTURE IS INDICATED THIS IS BASED ON MASON NAVARRO PLEDGE & HISTORIC RECORD SURVEY INFORMATION
- ALL NEW STEELWORK IS TO BE GRADE 43 IN ACCORDANCE WITH BS 5950. ALL BOLTS TO BE GRADE 8.8 AND PLATED.
- ALL NEW STEELWORK IS TO BE BLAST CLEANED TO SA 2.5 AND PAINTED WITH HIGH BUILD ZINC PHOSPHATE PRIMER, 75um MIN. DFT PRIOR TO DELIVERY TO SITE.
- CONCRETE FOR PADSTONES TO BE 1;2:4 MIX WITH MAX 20mm AGGREGATE SIZE.
- TIMBER TO BE STRENGTH CLASS C16 TO BS 5268, MOISTURE CONTENT NOT. EXCEEDING 20% AT TIME OF ERECTION. STRUCTURAL TIMBER TO BE WANE FREE. ALL TIMBERWORK FIXINGS ETC. TO COMPLY WITH BS 5268. ALL FIXINGS TO BE PLATED. ALL NEW TIMBER TO BE PRESERVATIVE TREATED DOUBLE VAC OR EQUAL APPROVED.



Detail D-300.13 Joist doubling up detail
Scale 1:5

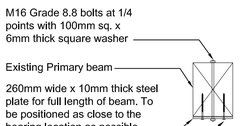


Detail D-300.12 PFC Splice Detail
Scale 1:10

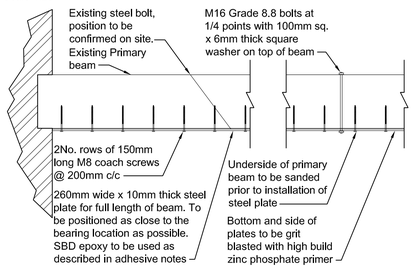


First Floor Beam Strengthening Underside View
Scale 1:20

Adhesive Notes:
SBD epoxy plus structural adhesive should be used to bond the steel plates to the existing section. Existing timber surfaces to be sanded smooth and all dust removed before applying adhesive. Clamping pressure shall be applied to freshly glued joints by screwing elements together until adhesive squeezes out of joints.

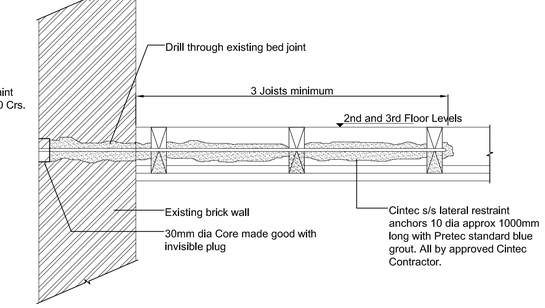


First Floor Beam Strengthening Section View
Scale 1:20

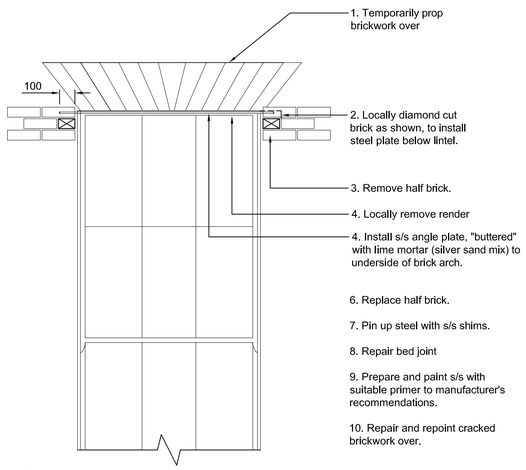


First Floor Beam Strengthening Details
Scale 1:20

Detail D-300.9 floor strapping detail
Scale 1:10

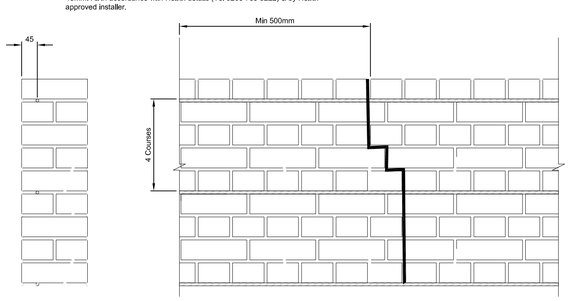


Detail D-300.17 - Wall To Floor Tie
Scale 1:10



Detail D-300.15 Lintel Strengthening
Scale 1:20

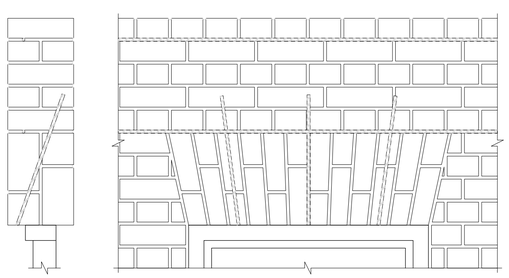
6 mm Helibar reinforcement in Helibond grout every 4th brick course to a depth of 45mm. All in accordance with Helifix details (Tel 0208 735 5222) & by Helifix approved installer.



Detail D-300.11 helifix crack stitching repair
Scale 1:10

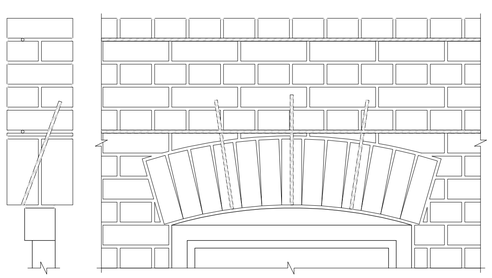
Parallel lengths of helibar rod are bonded into the specified cut slots directly above the existing lintel. Angled cemties are installed through the lintel and into the masonry above the lower helibars.

6mm helibar reinforcement in helibond grout to a depth of 45mm. All in accordance with helifix details (tel 0208 735 5222)



Detail D-300.14 Flat Brick Arch Lintel Strengthening
Scale 1:10

Parallel lengths of Helibar rod are bonded into the specified cut slots directly above the existing lintel. angled cemties or dryfix ties are installed through the lintel and into the masonry above the lower Helibars, to be installed by approved Helifix contractor to Helifix details & specification.



Detail D-300.16 Brick Arch Lintel Strengthening
Scale 1:10

General

1.1 This drawing is to be read in conjunction with all Architect's, Engineer's and Services Engineer's drawings and specifications.
1.2 Do not scale from any of the structural drawings. All dimensions to be verified on site and any discrepancies should be highlighted.
1.3 The contractor is responsible for the stability of the building and adjoining structures during construction and shall design, install, adapt and maintain all necessary propping and temporary works. A method statement for the temporary works must be submitted to the contractor administrator for comment before work begins.
1.4 Fire protection to all structural elements to Architect's details.
1.5 All waterproofing to the Architect's details.
1.6 All materials to comply with the relevant British Standard.

Foundations

2.1 The contractor is to give the Engineer a minimum notice period of 3 working days to inspect all foundation excavations.
2.2 Steps in foundations to be at least 1000mm long and no greater than 500mm high.
2.3 Adopt 75mm claymaster to inside face of all external foundations deeper than 1500mm.
2.4 For day joints, install 2No. 400mm long 12mm Ø high grade steel dowels with 200mm embedment with minimum 75mm cover.

Concrete

3.1 All materials and workmanship to comply with BS 8110.
3.2 All mass concrete to be designated grade GEN3.
3.3 All reinforced concrete to be designated grade RC32/40.
3.4 Unless otherwise noted the minimum cover to reinforcement is to be 35mm.
3.5 Pre-cast floors to be 200mm thick. Proprietary pre stressed units e.g. Bison Hollow Core Floors and installed strictly in accordance with the manufacturer's specification. The contractor is to provide fabrication drawings to the CA for comment a minimum of 2 weeks before the start of manufacture. Planks to be designed for 2.5kN/m² superimposed load.
3.6 All padstones to be constructed in either 30N mass concrete or 50N (Class B) Engineering brick.

Masonry

4.1 All materials and workmanship to comply with BS 5628.
4.2 New blockwork to have 7N/mm² minimum crushing strength, minimum density of 1200kg/m³ and to be set in 1:1:6 cement/lime: sand mortar.
4.3 New brickwork to have 20N/mm² minimum crushing strength and to be set in 1:1:6 mortar.
4.4 All cavity wall ties and restraint straps to be stainless steel and to be fixed strictly in accordance with the manufacturer's specification.
4.5 Cavity wall ties are to be provided at min. 900 horizontal and 450 vertical centres and within 225 of all reveals.
4.6 For cavities up to 150mm wide use Type 1 wall ties (Ancon ST1 or similar approved), with minimum embedment depth in inner leaf of 85mm. For cavities over 150mm wide refer to MNP for further specification.
4.7 All tie types, positioning and installation to be in accordance with BS5628:1.
4.8 New lintels over standard door openings (max. 1000 wide) in internal loadbearing walls to be precast, pre stressed lintels (Naylor R6 or similar unless noted otherwise).
4.9 Vertical movement joints in masonry are required as follows:
Brickwork - Every 12m horizontally
Blockwork - Every 6m horizontally
Refer to MNP layout for positions of movement joints. Positions to be confirmed by Architect prior to construction.

Steelwork

5.1 All materials and workmanship to comply with BS 5950.
5.2 Unless noted otherwise all new steelwork to be grade S355 JR to BS EN 10025 U.N.O. Bolts to be grade 8.8 equivalent and hot dip galvanised.
5.3 All steelwork to be thoroughly cleaned by grit blasting to grade Sa2.5 and painted with 2 coats of zinc phosphate primer to a minimum overall thickness of 75 microns.
5.4 All steelwork built into a solid or cavity external wall should have 2 coats of high build bituminous paint.
5.5 The contractor must allow for tolerance in fabrication and provide all shimming and packing necessary to obtain the correct levels shown on the drawings.
5.6 All steelwork to be supported on 440 long x 100 wide x 215 deep mass concrete padstones, ensuring 100mm bearing, unless noted otherwise.
5.7 Connections to be designed and detailed by fabricator.

Timber

6.1 All materials and workmanship to comply with BS 5268
6.2 Structural timber to be minimum Grade C16 and preservative treated.
6.3 Structural plywood to be Canadian or North American Douglas Fir or similar approved.
6.4 All proprietary timber fixings such as joist hangers to be hot-dip galvanized and used and installed strictly in accordance with the manufacturers recommendations.

REV	COMMENTS	DATE	CHK

STATUS
PRELIMINARY

mnp
mason navarro pledge
Consulting Civil and Structural Engineers
Bancroft Court, Hitchin, Hertfordshire SG5 1LH
Telephone: 01462 632012 Fax: 01462 632233
Email: office@mnp.co.uk www.mnp.co.uk

CLIENT
THE BEDFORD ESTATES
29a Montague Street
London
WC1B 5BL
Tel: 0207 636 2885
Fax: 0207 255 1729

PROJECT
21 BEDFORD SQUARE, LONDON, WC1B

DRAWING TITLE
DETAILS

SCALE @ A1	DATE
AS NOTED	10.07.15
DRAWN BY: JE	CHECKED BY: RE
JOB No. 215057	DRAWING No. D-300	REV